

Notice of Allowability

Application No.

09/911,602

Examiner

Rose M Miller

Applicant(s)

ORAVECZ, MICHAEL G.

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 11/29/04 and amendment filed 12/6/04.
2. ☒ The allowed claim(s) is/are 62-63 65-85.
3. ☒ The drawings filed on 09 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/29/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 12/09/04
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeff Salmon on 09 December 2004.

2. The application has been amended as follows:

Please amend the claims as follows:

62. (Currently amended) An apparatus for use in acoustic micro-imaging, said apparatus comprising:

a transducer that is adapted to be coupled to a microelectronic sample via a coupling medium;

a controller that is operatively coupled to said transducer, said controller being adapted to cause said transducer to emit a pulse of acoustic energy toward each one of a plurality of three-dimensionally varied points located within a given volume that is defined inside of the microelectronic sample, and to cause said transducer to have, for each one of said pulses, a focal point that is disposed at the same location within the given volume of the microelectronic sample as the corresponding one of the three dimensionally varied points;

said transducer being adapted to receive a reflection signal corresponding to each one of said pulses, each one of said reflection signals comprising an A-Scan of the microelectronic sample that is in-focus at the point within the given volume of the microelectronic sample corresponding thereto; and

wherein all of said reflection signals represent acoustic impedance features present within the given volume defined inside of the microelectronic sample. sample;
and

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a data memory that is operatively coupled to said controller and said transducer, said controller being adapted to cause digitized representations of each one of said reflection signals to be stored in said memory.

Please cancel claim 64.

In claim 65, on line 1, please change "64" to --62--.

In claim 67, on line 1, please change "64" to --62--.

In claim 69, on line 1, please change "64" to --62--.

3. Since claim 62, as amended above, constitutes an allowable linking claim, the restriction requirement made in the Office action mailed on 11 June 2003 is hereby withdrawn. This rejoins all groupings into the application for prosecution.

4. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach and/or suggest an acoustical imaging system (or memory storing data from an acoustical imaging system) where the data produced by the acoustical imaging system is determined from individual A-scans where the A-scans are focused at a plurality of three-dimensionally varied points located within a given volume that is defined inside of a microelectronic sample. The closest prior art utilizes an A-scan which is focused at the surface of the sample or which does not vary the focus of the A-scan based upon a point of interest.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rose M Miller whose telephone number is 571-272-2199. The examiner can normally be reached on Monday - Thursday, 7:00 am to 5:30 pm.

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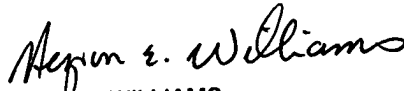
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RMM

10 December 2004



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800